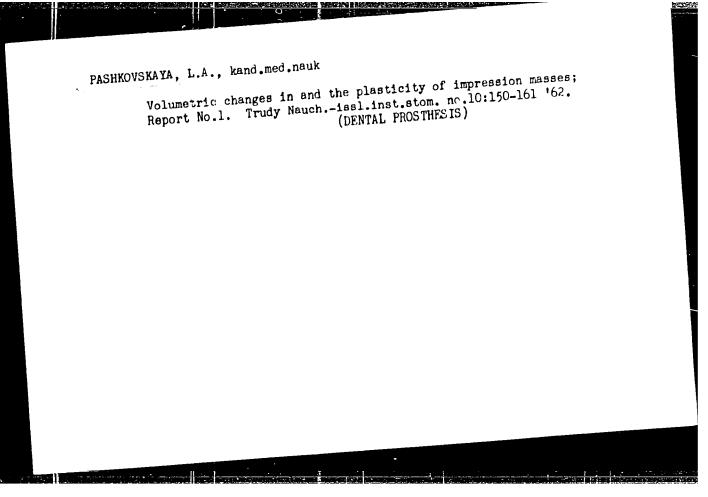
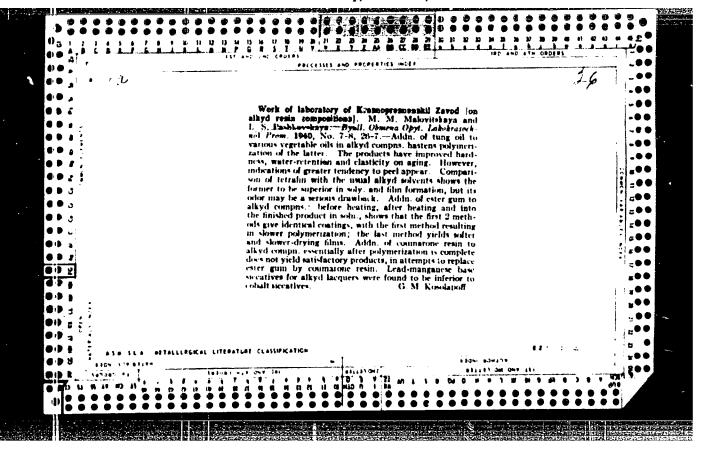
TZBAVITELEV, P.V., MOGILEVCHIK, Z.K., PASHKOVSKAYA, G.I., TERMOV, V.I., TSELYUKO, I.G.

Street noise in Minsk. Zdrav. Bel. 7 no.8:46-49 Ag '61. (MI.A 15:2)

Property in the second second by the second second

1. Iz kafedry obshchey gigiyeny Minskogo meditsinskogo instituta (zav.kafedroy - prof. Z.K.Mogilevchik) i Belorusskogo sanitarno-giginicheskogo instituta (direktor - doktor meditsinskikh nauk P.V.Ostapenya). (MINSK_NOISE CONTROL)





THE PARTY OF THE P

"On Poisonous Chemicals Used in Arriculture," by M. S. Irger, V. S. Shadurskaya, and G. I. Pashkovskaya, Zdravookhranenive Belorussii, 1956, 3, pp 49-51 (from Sovetskoye Meditsinskoye Referativnoye Obo: reniye, Zdravookhraneniye, Gigiyena i Sanitariya, Istoriya Meditsiny, Moscow, No 20, 1956, abstract by O. Mogilevskaya, pp 61)

"Authors review in brief the toxicological characteristics of the following poisonous chemicals being used at the present time in agriculture: protars (preparation P. D.); preparation A. B.; formalin; granozan (preparation NIUIF-2); mercuran (mixture of granozan and hexachlorane); (preparation NIUIF-2); mercuran (mixture of granozan and hexachlorane); DDT; hexachlorane; and preparation NIUIF-100 (thiophos). All poisonous chemicals should be applied only under supervision of medical personnel. It is essential that processing machines PSP-0.5 and PU-1, dusting machines, sprayers, and means for the protection of the individual workers handling the poisonous chemicals be used. Poisonous chemicals should not be stored in general warehouses. Sanitary-educational work among personnel coming in contact with the poisonous chemicals is necessary." (U)

[Comment (UNCLASSIFIED): Protars (preparation P. D. is a gray powder, a mixture of Calcium arsenite with talc containing not less than 10 percent of As₂O₃. A. B. preparation is a mixture of copper sulfate and carbonate salts containing 15 to 16 percent of copper.]

PASLIKEL OKAYA, CI

137-58-2-4459

Translation from Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 308 (USSR)

Shadurskaya V.S., Irger, N.S., Pashkovskaya, G.I. **AUTHORS**

The Protection of Health During Electric Arc Welding at the Machine-building Plants of the Belorussian Soviet Socialist TITLE Republic (K voprosu ozdorovleniya usloviy truda pri provedenii elektrosvarochnykh rabot na mashinostroitel'nykh zavodakh BSSR)

Zdravookhr. Belorussii, 1957, Nr 7. pp 62-64 PERIODICAL

Investigation has revealed that the air in the vicinity of welders (and being breathed by them), and even at places remote ABSTRACT from the welding, is being polluted by MnO, Co, and other substances in concentrations exceeding the permissible maximum. It is pointed out that such pollutants, especially Mn, can have lasting toxic effects. Most harmful to health are considered to be the electrodes TsM-7 and MEZ-K---less harmful, OMM-5 and the grades from 4 to 55. Measures recommended to safeguard health are proper ventilation, adequate insulation of potentially harmful processes use of the least toxic electrode types, introduction of automatic and semiautomatic flux-

Card 1/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

in the said of the court of the said of

		1-2-4459
The Protection of Hea	alth (cont.)	,
shielded welding, abs	solute enforcement of the rule that any painting	g done in
assembly-welding she	ops be done in separate closed compartments.	Ye.L.
1. Arc welding—USSR	2. Personnel-Health factors	
Card 2/2		

SHADURSKAYA, V.S., PASHKOVSKAYA, G.I.

Accident in a telephone calbe manhole. Gig. 1 san. 23 no.8:76 Ag '58 (MIRA 11:9)

1. Ix Belorusskogo sanitarnogo instituta. (CARBOS MONOXIDS—TOXICOLOGY)

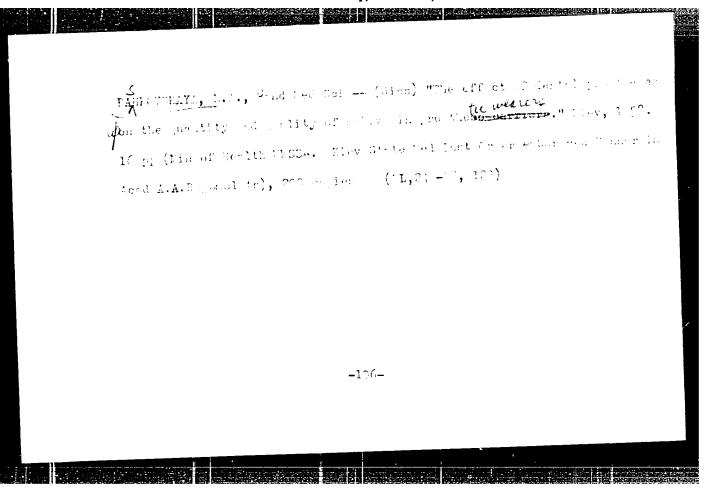
SHADURSKAYA, V.S.; IROER, N.S.; PASHEOVSKAYA, G.I.

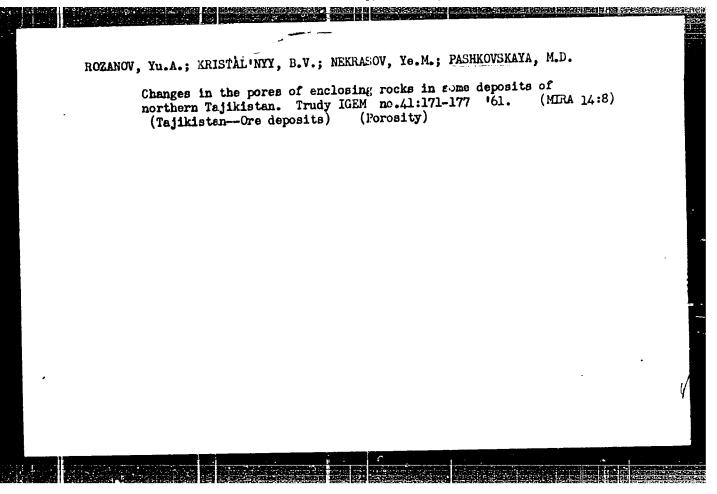
Improvement of working conditions in mercury laboratories. Zdrav.

Belor 5 no.2:44-45 F '59.

1. Belorusskiy nauchno-issledovstel'skiy sanitarnyy institut.

(SMOLEVICHI--NERCURY--TOXICOLOGY)

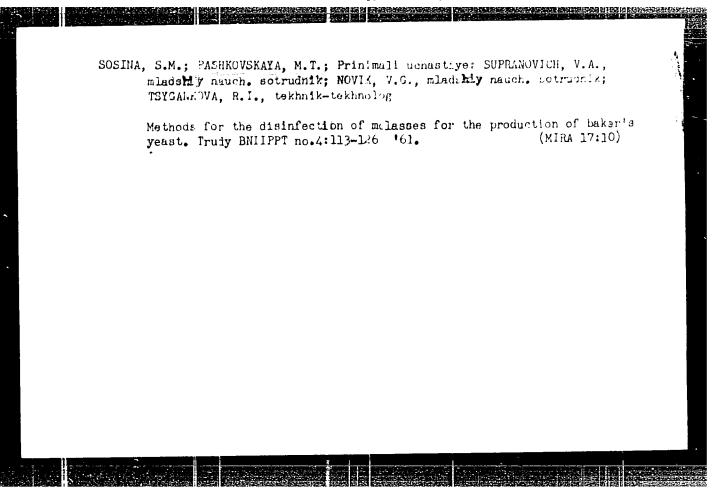




PASHKOVSKAYA, M.N., mashinist turbiny; EHODYAKOV, G.V., red.; SEVERNYY, P.A., tekhn.red.

[My experience in accident-free work] Moi opyt bezavariinoi raboty. Orenburgskoe knizhnoe izd-vo, 1958. 9 p. (MIRA 12:5)

1. Orakaya Teploelektrotsentral' (for Fashkovskaya). (Industrial safety)



ENVENTOR: Makharinskiy, Ye. G.; Roginskiy, S. L.; Korobov, V. I.; Dreytser, V. I.; Pashkovskaya, M. P.

ORG: None

C:rd 1/1

TITLE: A fiberglass-reinforced plastic tubular shell. Class 47, No. 186231

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 138

TOPIC TAGS: fiberglass, reinforced plastic, reinforced shell structure

ABSTRACT: This Author's Certificate introduces a fiberglass-reinforced plastic tubular shell based on Author's Certificate No. 165366. The rigidity and strength of the construction are increased and manufacture is simplified and speeded up by making the middle layer from prepressed stringers placed is close contact along the axis of the tubular shell to carry tie axial load.

SLB CODE: 11, 13/ JUBM DATE: 21May65

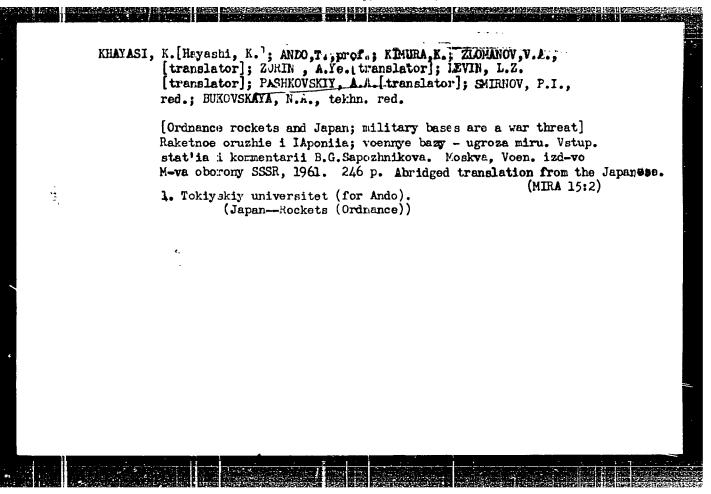
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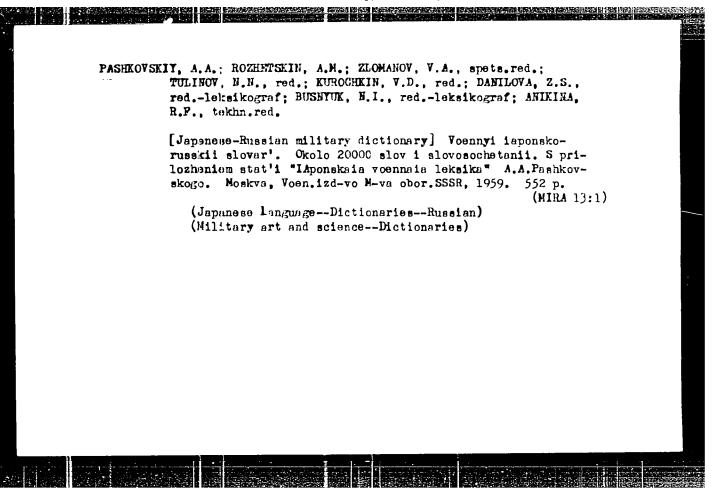
stringers.

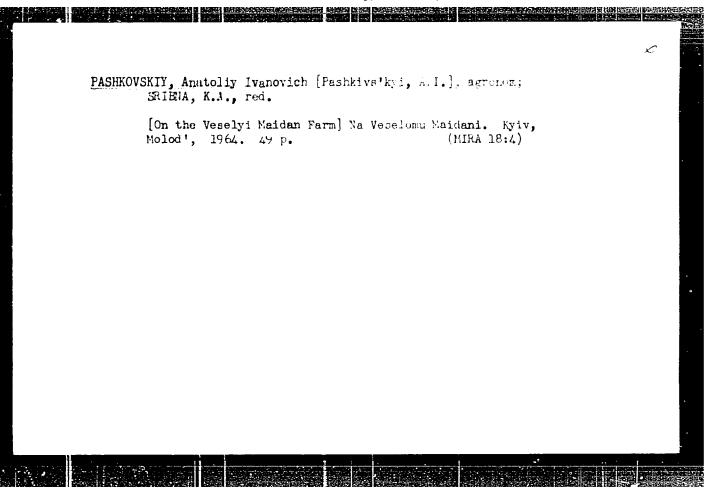
PASHKOVSKAYA, YE. I.

"Energence and Development of Mentality in Infants." Min. Education RSFSR, Moscow Oblast Pedagogical Inst., Moscow, 1955. (Dissertation for the Degree of Candidate in Pedagogical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105







PASEKOVSKIY, A. M.

USSI/Medicine - Flies

Medicine - Heredity, Experimental

Dec 47

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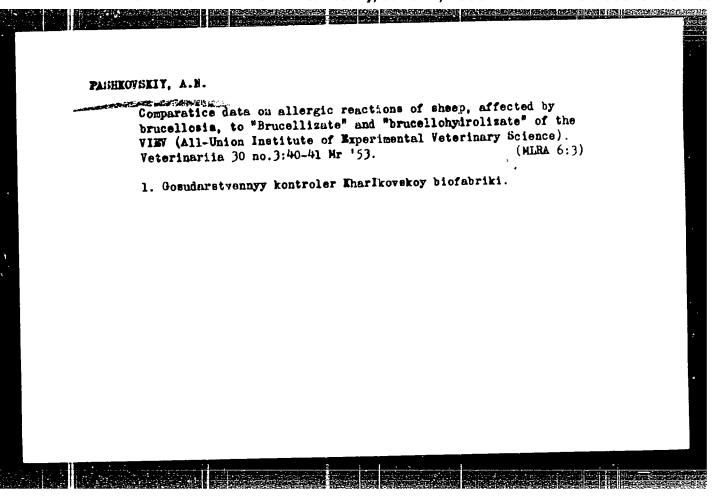
"Mutation in Drosphila Through the Action of Dichloridethylsulphide," S. M. Gershenzon, R. A. Zil'berman, O. L. Levochkina, A. M. Pashkovskiy, P. O. Sit'ko, N. D. Tarnavskiy, Genetics Sec, Inst Zool, Acad Sci USSR, 2 pp

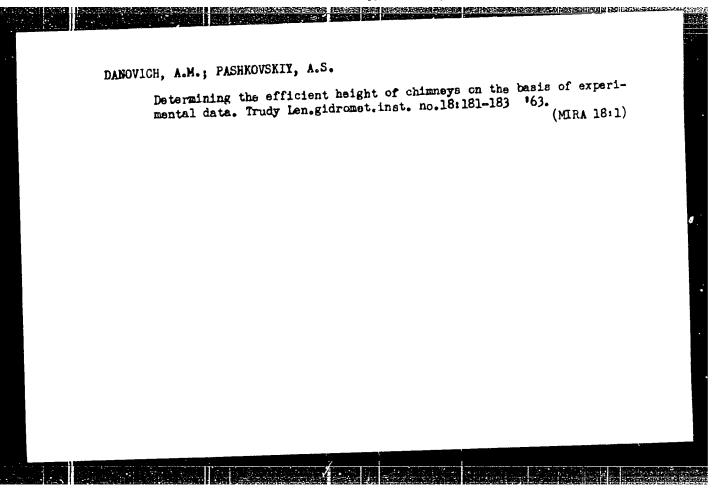
"Dol: Akad Nauk SSSR, Nova Ser" Vol LVIII, No 7

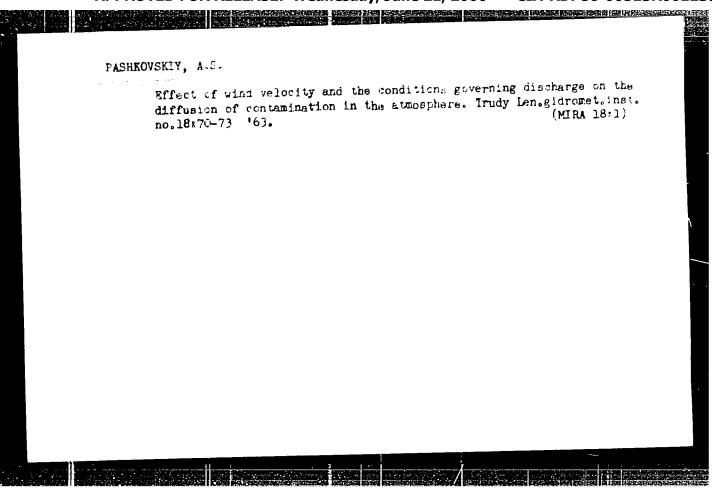
Chemical stimulation of mutation was begun before war. In postwar period yperite included in experiments. Observed that this substance had high mutation genesis quality which acts directly on chromosomes but does not cause any biological changes in cytoplasm. Submitted by Academician A. V. Palladin, 27 Jun 1947.

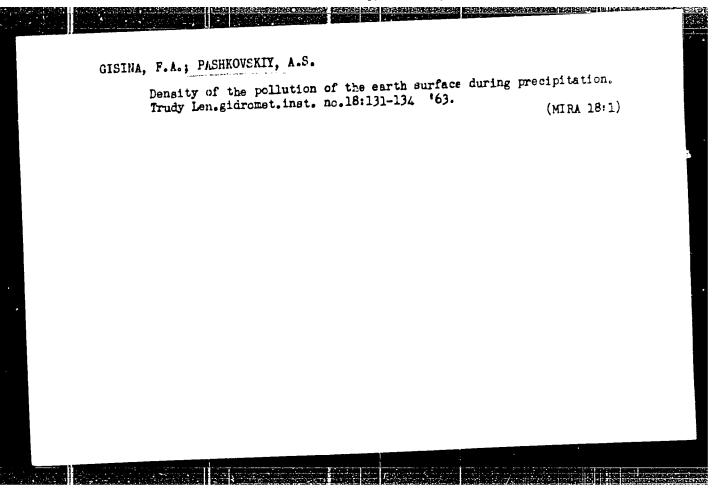
PA 60T53

USSA/Microbiology. Hemoglobinophillic Bacteria. Brucellae F-5 Abs Jour : Ref Lhur - Biol., No 14, 1958, No 62454 : Pashkovskiy A.N., Povoletskayn G.V., Zinenko V.V. : State Scientific-Central Institute of Veterinary Preparations Author Inst : Studies of Brucella Antigens in the Reaction of Binding Title Complements Orig Pub : Tr. Cos. mauchno-heatrolin. in-ta vet. preparatev, 1957, 7, 55-06 Abstract : No abstract : 1/1 Card 1.7



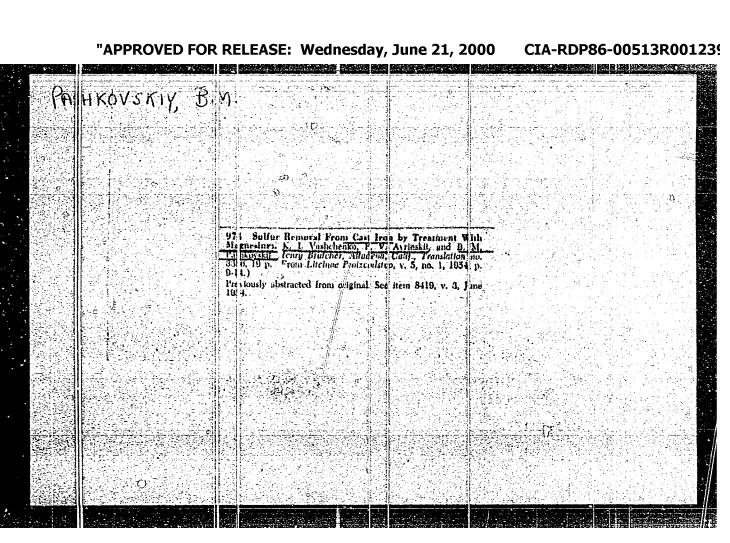


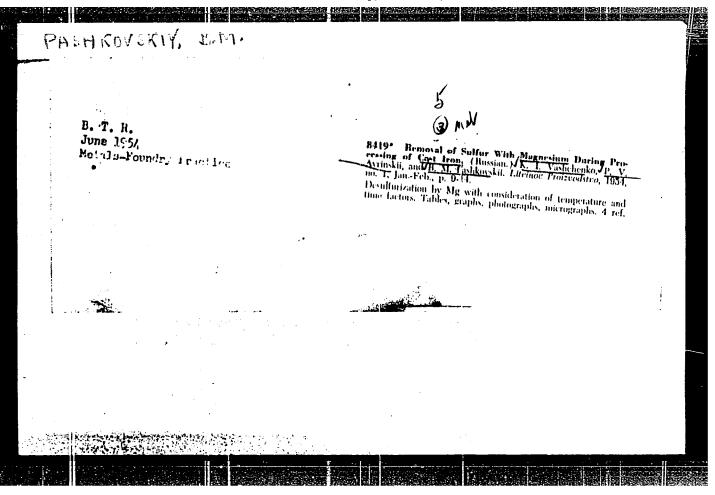


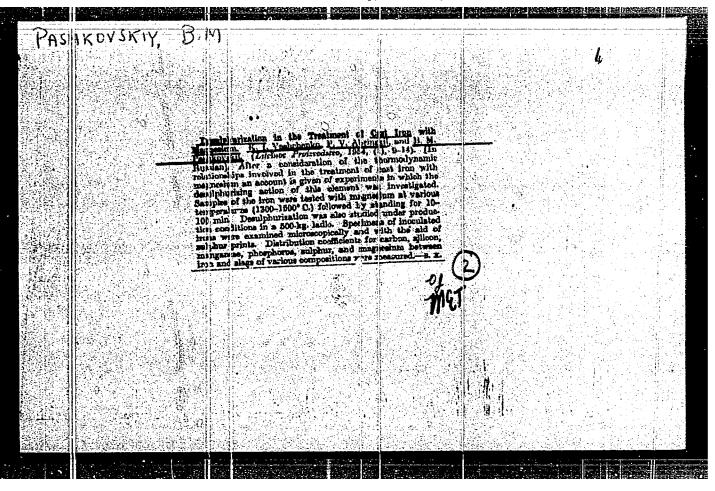


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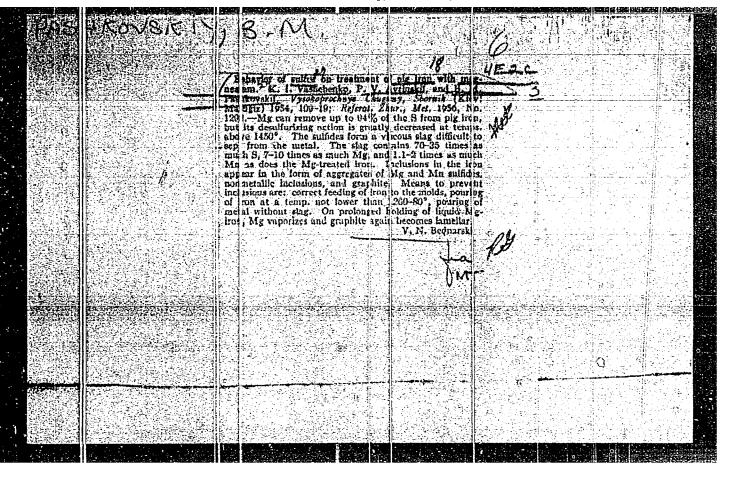
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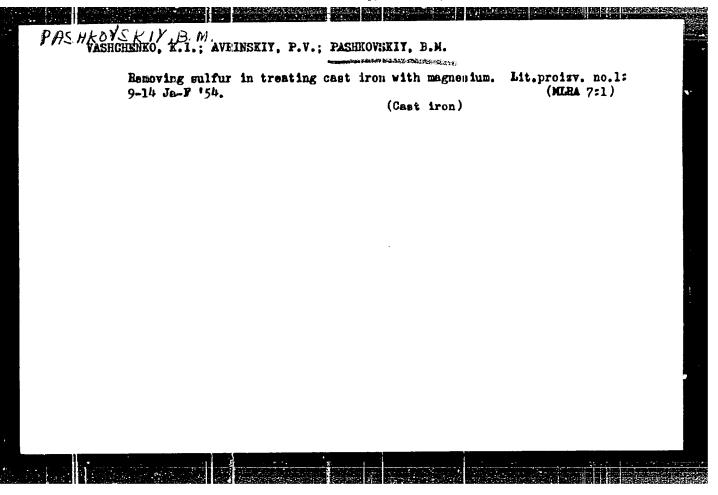


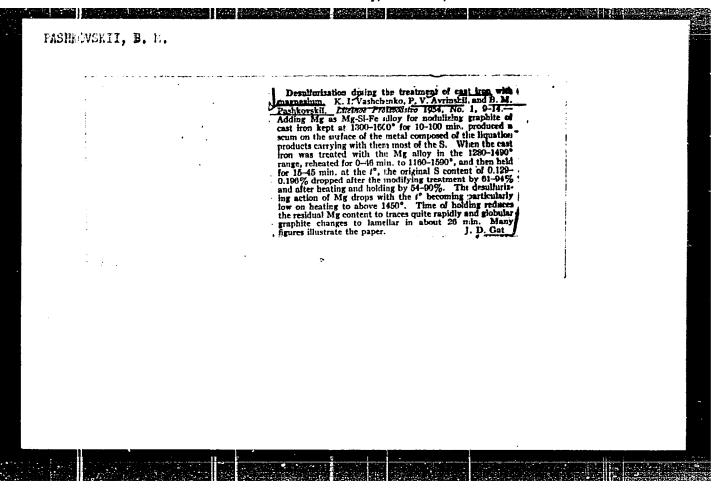




"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239







PASHIDVSKIY, B. N. USSR/Miscellaneous-Hetillurgy Sard 1/1 Author : Vashchimko, K. I., Avrinskiy, P. V., and Pashkovskiy, B. M. Mtle : Removal of sulfur during magnesium treatment of cast iron Periodical: Lit. Proizv. 1, 9 - 14, Jan-Feb 54 ibstract : The suifur content in cast iron varies between 0.10 and 0.15% but after treatment with magnesium the sulfur content decreases to approximately 0.01 - 0.03%. Hagnesium removes between 0.09 and 0.12% of sulfur, a process which requires from 0.97 to 0.09% of magnesium. When introducing magnesium into the cast iron consideration must be given to the amount of magnesius consumed for desulfurization of the cast iron. The reaction taking place in liquid cast iron during the addition of magnesium is as follows: FeSlig + Mggas = Felig + MgSsol. The heat of formation of magnesium sulfide at 250 is 84390 # cal. Magnesium sulfide decomposes in water and dissolves into acide. Four references. Tables, graphs, photos. Institution: . Submitted : ...

Fash Kousking, BZ.

AUI'HOR:

Pashkovskiy, B.Z., Engineer

99-10-6 8

TITLE:

"Earth Dams with Breakwaters" (Zemlyanyye plotiny s volnootboynoy stenkoy)

PESIODICAL:

"Gidrotekhnika i Melioratsiya", 1957, # 10, p 57-60 (UBSR)

ABSTRACT:

The author examined the earth dam with breakwaters of the Pavlov Machine Factory (Pavlovskiy mashinostroitel'nyy zavod'. In connection with the intended repair of the dam the question arose whether to retain the breakwaters or not. Studies revealed that by incorporating breakwaters at the crest of the dam, less filling material was needed, amounting to a saving of 15 %. In addition, the height of the dam from the high water mark to the crest can be reduced by 10 % as compared with a dam with sloping sides. The actual savings for the construction of breakwater dams per running meter amounted to approximately 33 cu m of earth and 4.1 sq m lining of the sloping section. The author maintains that because of the advantages offered the practicability of equipping earth dams with breakwaters ought be thoroughly examined. The article contains 1 photograph and 3 figures.

AVAILABLE: Cari 1/1 Library of Congress

PASHKOVSKIY, F.

Improve the removal of trash and dirt from sugar beets. Sakh.prom. 38 no.1:70 Ja '64. (MIRA 17:2)

1. Ukrainskiy gosudarstvennyy institut po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti.

PASHKOVSKIY, F.; TITARENKO, I.; DEKHTYAREVA, K.

TO BE THE PARTY OF THE PARTY OF

Ways to lower the cost of building sugar refineries. Prom.stroi. 1 inzh.soor. 4 no.5:38-42 S-0 '62. (MIRA 16:1)

1. Direktor Ukrainskogo gosudarstvennogo instituta po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti (for Pashkovskiy). 2. Glavnyy arkhitektor Ukrainskogo gosudarstvennogo instituta po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti (for Titarenko). 3. Glavnyy tekhnolog Ukrainskogo gosudarstvennogo instituta po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti (for Dekhiyareva).

(Sugar manufacture)
(Industrial plants—Design and construction)

:	Screened drum separator. Sakh.prom.30 no.11:48.49 N '56. (MLRA 10:2)
1	1. Matusovskiy sakharnyy zavod. (Separators (Machines))

PASHKOVSKIY, F. M.; KONYAKIN, V. F.

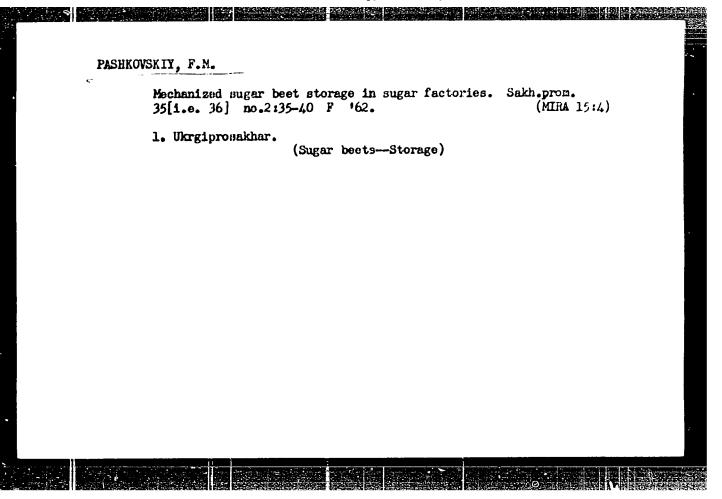
Cleaning of sugar beets from impurities. Sakh. prom. 36 no.10:
41-42 0 '62. (MIRA 1*:10)

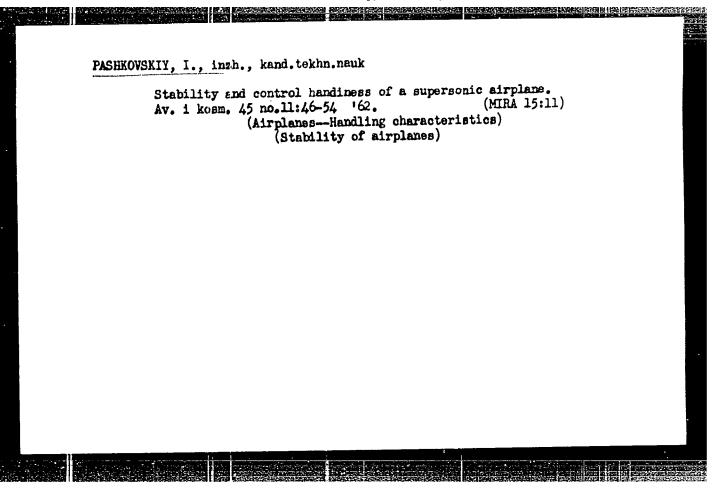
1. Ukrainskiy gosudarstvennyy institut po proyektirovaniyu predpriyatiy sakharnoy promyshlennosti.

(Sugar beets---Cleaning)

ZOTOV, V.P.; MAKHINYA, M.M.; PARSHIKOV, M.Ya.; GAVRILDV, A.N.; SILIN, P.M.;
GOLOVIN, P.V.; KHEYZE, N.V.; BUZANOV, I.F.; KHELEMSKIY, M.Z.;
YAPASKURT, V.V.; SHARKO, A.P.; SANOV, N.M.; LITVAK, I.M.; IVANOV,
S.Z.; LEFESHKIN, I.P.; KLEYMAN, B.M.; YEPISHIN, A.S.; GOLUB, S.I.;
GERASIMOV, S.I.; GEUBE, V.R.; PASHKOVSKIY, P.M.; LITVINOV, Ye.V.;
BENIN, G.S.; IVANOV, P.Ya.; VINOGRADOV, N.V.; PONOMARENKO, A.P.:
ZHIDKOV, A.A.; KOVAL', Ye.T.; KARTASHOV, A.K.; NOVIKOV, V.A.

Sixtieth birthday of A.N.Shakin, Director of the Central
Scientific Research Institute of the Sugar Industry. Sakh.
prom. 35 no.7:33 Jl '61. (MIRA 14:7)
(Shakin, Anatolii Nikitovich, 1901-)
(Sugar industry)





PHASE I BOOK EXPLOITATION

SOV/5922

Pashkovskiy, Igor' Mikhaylovich, Senior Scientific Collaborator, Candidate of Technical Sciences

Osobennosti ustoychivosti i upravlyayemosti skorostnogo samoleta (Stability and Control Characteristics of High-Speed Aircraft) Moscow, Voyen. izd-vo Min. obor. SSSR, 1961. 349 p. Errata slip inserted. 9000 copies printed.

Eds.: V.D. Votyakov and G.I. Kalashnik; Tech.Ed.: Ye.K. Konora-lova.

PURPOSE: This book is intended for flying, engineering, and technical personnel concerned with the operation of jet aircraft; it may also be useful to non-degree students at military aviation schools and readers interested in aviation.

COVERAGE: The author discusses the most important stability and control characteristics of aircraft in flight at near-sonic and supersonic speeds and high altitudes, high-speed instrument

Card 1/1/2

Stability and Control (Cont.)

SOV/5922

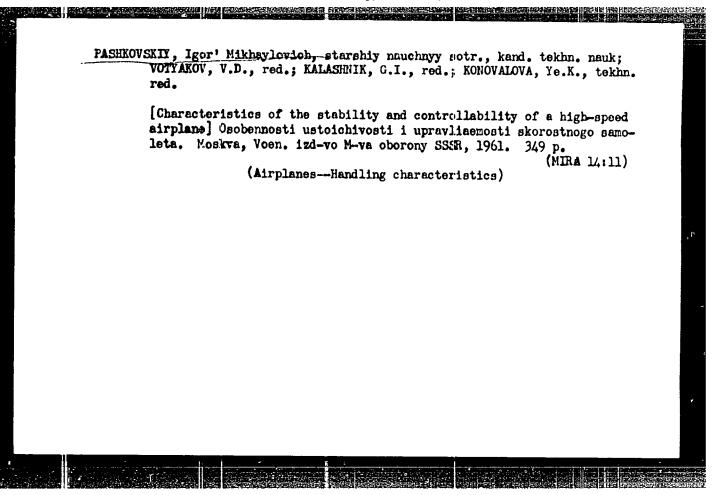
flying (high dynamic pressures), and the phenomena pilots may encounter under these conditions. The reasons for the development of these characteristics and methods for improving them are considered. The physical nature of a number of phenomena which do not occur in flight on aircraft with piston engines is examined. The effect of these phenomena on the flight characteristics, stability, and maneuverability of an airplane is shown. Particular attention is given to the aerodynamic characteristics of winged aircraft with swept wings and with wings of small aspect ratio (among them, triangular wings). In addition, certain modern trends in the aerodynamic configuration of high-speed aircraft are presented. Flight characteristics caused by improper aircraft configuration, structural flexibility, individual defects of the control system, and engine distribution are analyzed. No personalities are mentioned. There are 82 references: 11 Soviet, 69 English, and 2 French.

Card 2/12

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Mikhaylovich: Sarda	'yevich; Pavlov, Aleksey Vasil'yevich; Pashkovskiy, Igor' B4/
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Flight testing of air	craft (Letnyye ispytaniya samoletov) Moscow, Izd-vo "Mashino- 379 p. illus., biblio. Errata slip inserted. 3000 copies
printed.	
TOPIC TAGS:	aircraft flight test, aircraft
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PURPOSE AND COVERAGE: specializing in all professional people It presents up-to- the principles und modern airplane. TABLE OF CONTENTS:	employed by the arcraft industry at further testing lateral results as a

Ch. I. The atmos	sphere 11			1
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aircraft in space	ning the speed, pressur ce — 47	e, air temperatu	are and the coordinat	tes of an
h. IV. Ground pr aircraft — 73	reparations for flight	tests. The fire	t flight of an expen	rimental
h. V. Determinin	ng the flight character	istics of an air	'craft — 92	
h. VI. Aircraft	stability and control	characteristics	131	
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h. VIII. Tests at	t maximum flying speeds	s and mach number	rs 248	
h. IX. Aircraft s	stalling and spinning t	ests — 267		
	ion of aircraft maneuve		um overload tests.	Dynamic
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KOTIK, Mikhail Grigor'yevich, kand. tekhn. nauk; PAVLOV, Aleksey

Vasil'yevich, inzn.: PASHKOVEKIY, Igor' Mikhaylovich,
kand. tekhn. nauk; SARDANOVEKIY, Yariy Sergeyevich, inzh.;
SHCHITAYEV, Nikclay Grigor'yevich, inzh.; GALLAY, E.L.,
kand. tekhn. nauk, zasi.letchik ispytatel' SSS., retsenzent;
KIRILLOV, Ye.A., inzh., retsenzent

[Flight testing of airphanes] Letnye ispytanila samoletov.
Moskva, Mashinestreonic. 1965. 379 p. (MIRA 18:11)

USSR/Forestry - Forest Cultures.

K.

Abs Jour

: Ref Zhur - Biol., No 4, 1958, 15397

Author

: _K.A. Pashkovskiy, E.L. Berezin

Inst

STATE OF THE PROPERTY OF THE P

Title

: The Cultivation of Pine Saplings in the Pine Wood Belts

of the Irtysh River Region.

(Vyrashchivaniye seyantsev sosny v lentochnykh borakh

Pr:lirtysh'ya).

Orig Pub

: Izv. AN Kazssa, ser. biol., 1957, vyp. 1, 37-48

Abstract

: Two years experiments have been conducted on raising pine trees at the experimental nursery of Semipalatinsk Forestry Suburban Wood. The various agrotechnical methods were studied. It was established that the fall is the best time to plant pine; the best method of planting is by the four-strip system. The saplings develop best when the density stand is 80-100 specimens per 1 meter of strip, attained by thinning the saplings

Card 1/2

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UBSR/Forestry - Forest Plants.

K-5

Abs Jour

: Ref Zhur - Biol., No 2, 1958, 5926

Author

Pashkovskiy, K.A.

Inst

Institute of Botany, Academy of Sciences KazSSR.

Title

: Some Results of Cultivation of the Black Haloxylon in

Kazakhstan.

O::ig Pub

: Tr. In-ta Botan. Akad Nauk KazSSR, 1956, 3, 160-163

Abstract

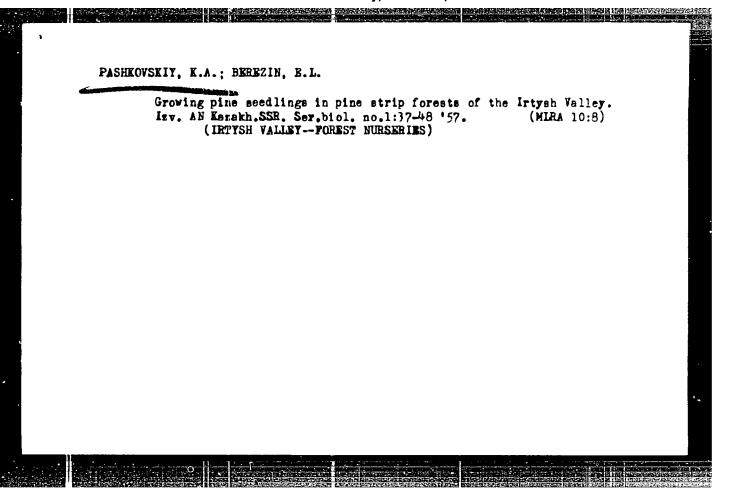
: Sowing black haloxylon on virgin land in southern Kazakhstan gave negative results, as did sowing it on plowed land, whether in winter or spring. In all instances the few shoots that appeared died in the end of April or beginning of May from soil dryness. The haloxylon can be grown only when planted or set out in tilled soil. The only successful way to grow it is either to plant the seed in the autumn at a depth of 5-7 mm. [sic] in soil which

Card 1/2

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000

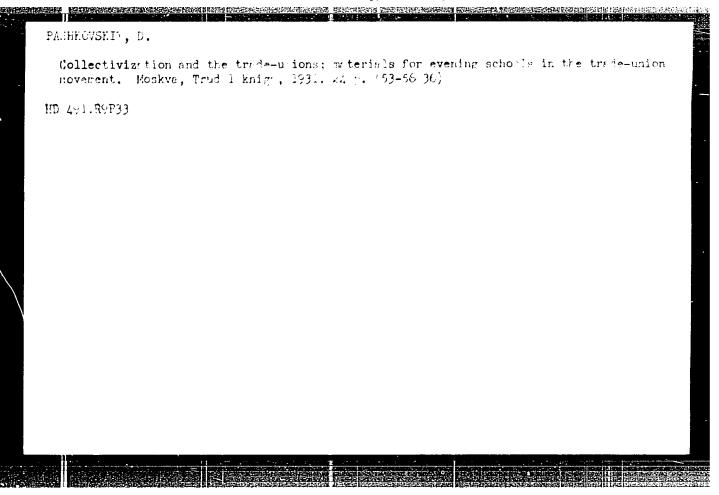
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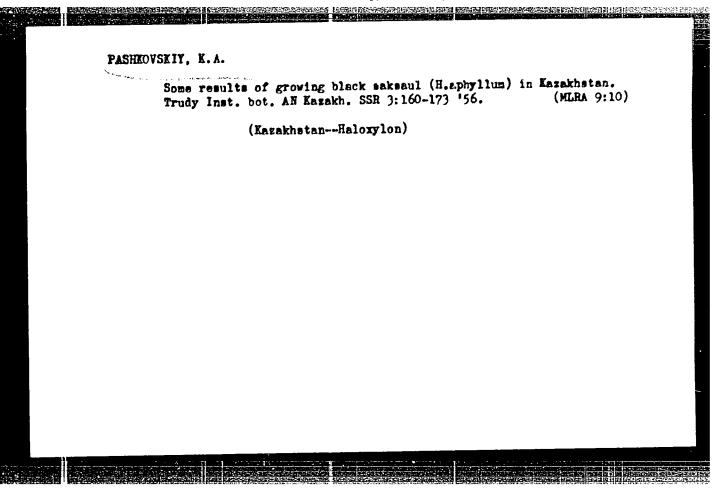


1	PASHK	OVSKII, K. A.;	YASHOHIIKO,	1	₽.
2.	USSR	(600)			

- 4. Apples Dzhungarian Ala-Tau
- 7. Types of apple orchards in the Dzhungarian Ala-Tau and cultivation taking place in them. Vest. AN Kazakh. SSR No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Unclassified.





200		
	PASHKOVSKIY, K. A.	30.
	Smends of saksaul in the Kos-Kuduk forest. Alma-Ata, Akademiia nauk Kazakhskoi SSR, 1952. 68 p.	
	1. Forests and forestry - Kazakhetan.	

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FASHKOVSKIY, K. A.

Fashkovskiy, E. A. - "Measures for assisting the natural restoration of tine trees in the boar zone of the Irtysh region," Vestnik Akad. neuk "azakh. SSR, 1948, No. 12, p. 79-84 - Summary in Kazakh.

So: U-3566, 15 "arch 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 194)
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PASHKOVSKIY, K.A.

25119. PASHKOVSKIY, K. A. O Rasprostranenii Sosnogo Pililishchikatkacha Lyda Stelatta Christ V Sosnovykh Borakh Kazakhstana, Vestnik Akad Nauk Kazakh. Ssr. 1949, No. 5, S 108-09 -- Pibliogr: 5 Nazv.

SC: Letopis' No. 33, 1949

- 1. PASHKOVSKIY, K.A.; YASHCHENKO, M.P.
- 2. USSR (600)
- 4. Dzhungarian Ala-Tau Apples
- 7. Types of apple orchards in the Dzhungarian Ala-Tau and cultivation taking place in them, K.A. Pashkovskiy, M.P. Yashchenko, Vest.AN Kazakh. SSR no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

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PASHKOVSKIY, M.V. [Pashkovs'kyi, M.V.]; LUTSIV, R.V. [Lutsyv, R.V.];

SAVITSKIY, I.V. [Savyts'kyi, I.V.]

Production of high purity sulphur. Ukr.fiz.zhur. 5 no.3; (MIRA 13:8)

(Sulphur)
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PASHKOVSKIY, M.V.; RYBAIKA, V.V.; VOIZHENSKIY, D.S.

Simple device for regulating the temperature under laboratory conditions. Prib. i tekh. eksp. no.6:134 N-D '60. (MIRA 13:12)

1. L'vovskiy gosudarstvennyy universitet. (Temperature regulators)

PASHKOVSKIY M V

S/185/61/006/004/013/015 D274/D303

24.7700 (1035, 1043, 1164)

Pashkovs'kyy, M.V. and Volzhens'kyy, D.S.

AUTHO! ...:

Study of properties of semiconductor systems Cu₂0.

Nb205 and Cu20. V205 TITLE:

Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 4, 1961, PERIODICAL:

549-554

The substances used in the investigation were $\mathrm{Cu}_2\mathrm{0}$, $\mathrm{V}_2\mathrm{0}_5$ and Nb205 of type (grade) "ChDA". The specimens (in the form of TEXT: tablets with diameter 8 mm and thickness 2-4 mm) were sintered in an electric furnace in an atmosphere of air at a temperature of 1200°C for 3 hours: Then they were cooled in air. The resistivity p of the specimens was measured. A figure shows log polotted against weight % of Cu₂0 for the specimens Cu₂0 Nb₂0₅ This dependence has a linear character. Hence the conclusion that the obtainance of company of the conclusion of company of company the conclusion of company of co ed system $\text{Gu}_20\cdot\text{Nb}_20_5$ is a mechanical mixture of components.

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27968 S/185/61/006/004/013/015 D274/D303

Study of properties...

is also confirmed by microstructural and X-ray analysis. The system Cu20. V205 was similarly prepared, melted in crucibles and tempered in cold, distilled water. The resistivity of such specimens was measured. The obtained curves show a minimum in the region of 50 weight %. The presence of a singular point on the curves, three phases in some specimens, as well as the results of X-ray structural analysis, lead to the conclusion that a chemical compound was formed under the given conditions. A picture of one of the obtained alloys is shown. The resistivity measured in single crystals of specimens with 30 to 50 weight % Cu₂O, was approximately 10⁻¹ ohm/cm With further increase in Gu_2O content, the resistivity increases, approaching the resistivity of pure Gu_2O . For crystals with 30, 50 and 60 weight % Cu₂0, the temperature dependence of the electrical conductivity was measured over a temperature range of -160 to +23°C, and the activation energy of carriers calculated. The graphs show, for all the specimens, an increase in conductivity with temperature. The activation energy is constant (equal to 0.25 eV) from -160 to .20°C; at higher temperatures it decreases,

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Study of properties ...

but it increases with resistivity of specimen, i.e. it depends on how the specimen was obtained. Further, the electrical properties of $Cu_20\cdot V_20_5$ are compared with those of V_20_5 . Such a comparison shows that the semiconductor properties of the oxygenic lattice VO6 appear quite strongly. Whereas in the case of natrium tungstenbronzes the penetration of Na-atoms into the WOz-lattice led to conductivity of a metallic character, in the case of vanadium pentoxide, only a negligible increase in conductivity was observed. The author suggests the following interpretation of the results obtained. The copper atoms yield their valence electrons to the covalent bond with oxygenic lattice, forming in the forbidden zone of vanadium pentoxide additional donor levels. This assumption is supported by Neubuhr's theory (Ref. 21: F.F. Vol'kensteyn, Electroprovod-nost' poluprovodnikov (Electrical Conductivity of Semiconductors), M.-L., 1947). The decrease in activation energy of copper-vanadium bronzes compared to pure vanadium pentoxide, is due to the location of levels in the new chemical compound and to their concentration. There are 6 figures and 21 references: 13 Soviet-bloc and 8 non-Sov-

Card 3/4

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Study of properties...
D274/D30

S/185/61/006/004/013/015 D274/D303

iet-bloc. The 4 most recent references to English-language publications read as follows: L.E. Conroy, M.J. Sienko, J. Am. Chem. Soc., 79, 4048, 1957; M.J. Sienko, J. Am. Chem. Soc., 81, 5556, 1959; A.D. Wadsley, Acta Cryst., 8, 695, 1955; L.H. Brixner, J. Inorg. Nucl. Chem., 14, 225, 1960.

ASSOCIATION: L'vivs'kyy derzhuniversytet im, Iv. Franka (L'vov

State University im. Iv. Franko)

SUBMITTED: December 26, 1960

Card 4/4

38952 5/181/62/004/007/034/037 B111/B104

247-00

Pashkovskiy, M. V., Rybalka, V. V., and Savitskiy, I. V.

AUTHORS:

Conduction processes in single crystals of mercury sulfide

TITLE:

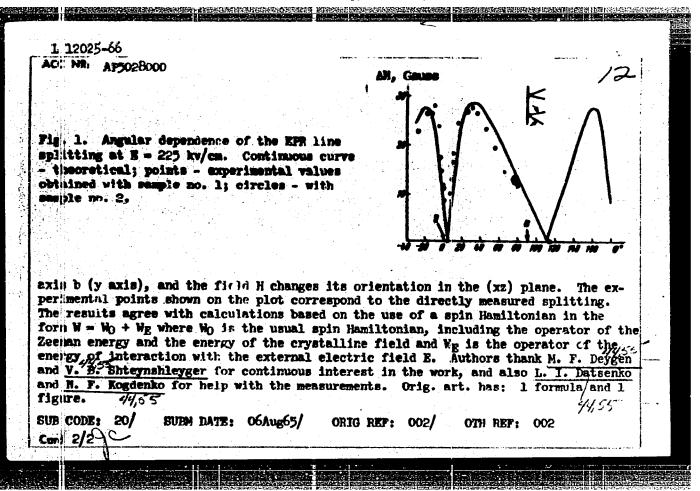
PERIODICAL:

Fizika tverdogo tela, v. 4, no. 7, 1962, 1970-1972

FEXT: HgS monocrystals were produced from 99.99% pure Hg and S by vacuum synthesis at 750°C or by sublimation in an atmosphere of N or H2S (resistivity at room temperature 109-1010 ohm.om, forbidden band width 1.8 ev). Admixtures (< 0.1 percent by weight) of I, Se, Te increased the conductivity by 2-3 orders of magnitude, whereas Cu, Tl impurities decreased it. Monochromatic light irradiation increased conductivity by 2-5 orders of magnitude. The maximum of spectral sensitivity for $\alpha\text{-HgS}$ lies at $\lambda = 620$ mm. On cooling toward shorter wavelengths it shifts at a rate of 3 A/degrees. Adding I, Se, Te, P, Cd, Ag, Cu gives rise to an additional maximum in the infrared region whose position and height depend on the type of impurities and their concentration, respectively. Relaxation of photoconductivity is observed by excitation with light pulses.

Card 1/2

11. 12025-66 EWT(1) , IJP(e) WN/GG SOURCE CODE: UR/0386/65/002/001/0386/65/
Author: Hugay, A. A.; Levkovskiy, P. T.: Maksimenko, V. M.; Pashkovskiv, H. V.; Popularin, A. B. 7735 Old: Institute of Semiconductors Academy of Sciences, Ukrainian SSR (Institut policiperovodnikov Akademii nauk Ukrainskoy SSR) 77,55
TITIE: Splitting of EPR lines of Cr3+ in ZnWO, by an external electric field
Sille: Zhurnal eksperimental now i teoretichenkow fiziki. Pin'ma v redaktniyu. (irilozheniye), v. P, no. /, 1965, 344-340
AUSTRACT: The authors have observed the splitting of two Cr ³⁺ EPR lines corresponding to transitions between the sublevels of the Kramers doublets occurring when an external static electric field E is applied to a 2000, crystal, in which are two non-equivalent positions of the 20° lon replaced by the Cr ³⁺ ion. These positions differ in inversion with respect to the position occupied by the zinc ion, so that the shift of the EPR line should manifest itself in the form of its splitting. The dependence of the line splitting on the orientation of an external static magnetic field H was also investigated. The experiments were made with an EPR spectrometer operating at 9230 Mc and at room temperature. The angular dependence of the line splitting, corresponding to the transition between the sublevels of the lower Krames doublet (Fig. 1), is presented for the case when the field E is directed along the crystallographic
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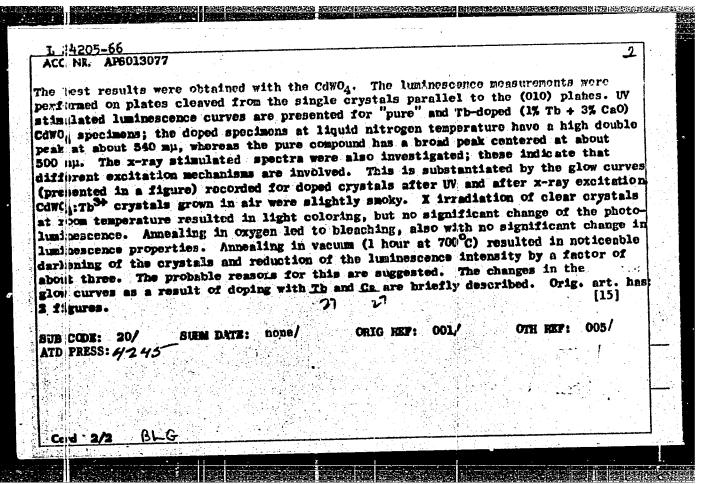


1 13125-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG/GG ACC NR. AP5023923 (M) SOURCE CODE: UR/C195/65/010/011/1222/1226 AUTHORS: Aleksyevenko, L. I. (Alekseyenko, L. I.); Zhomnir, S. V.; Chedzhemova, I. I.; Nogenko, A. Ye.; Lymarenko, L. M. (Limarenko, L. M.); Pashkovs'kyy, M. V. (Pashkovskiy, M. V.) ORG: L'vov State University im. I. Franko (L'vivs'kyy derzhuniversytet) 'TITLE: Growth of zinc tungstate crystals and investigation of their optical properties 1 17 SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 11, 1965, 1222-1226 TOPIC TAGS: optic spectrum, light absorption, luminescence spectrum, uv spectrum, ir spectrum, zinc compound optic material, single crystal were grown from the melt by the Czochralski method. The crystals were grown from the melt by crucibles using high-frequency heating. To provide the necessary temperature for crystal growth and further annealing above the platinum perature for crystal growth and further annealing above the platinum crucible a furnace with a nichrome heater was set up, making it possible to maintain a temperature of about 1000C. All crystals were annealed to maintain a temperature, at which all investigations were made. The conditions were studied for obtaining crystals with chromium acti-		
SOURCE: Ukrayins kyy fizychnyy zhurnal, v. 10, no. 11, 1965, 1222-1226 TOPIC TAGS: optic spectrum, light absorption, luminescence spectrum, uv spectrum, ir spectrum, zinc compound optic material, single crystal uv spectrum, ir spectrum, zinc compound optic material, single crystal uv spectrum, ir spectrum, zinc compound optic material, single crystal uv spectrum, ir spectrum, zinc compound optic material, single crystal uv spectrum, zinc compound optic material, single cryst	AUTHORS: Aleksyevenko, L. I. (Alekseyenko, L. I.); Zhomnir, S. V.; (hedzhemova, I. L.; Nogenko, A. Ye.; Lymarenko, L. M. (Limarenko, L. M.); Pashkovsky, M. V. (Pashkovskiy, M. V.) ORG: L'vov State University im. I. Franko (L'vivs'kyy derzhuniversytet)	
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AUTHOR: Bashuk, R. P.; Bilen' kyy, B. F Bilen' kiy, B. F.; Pashkovs' kyy, M. V Pashkovskiy, M. V.
ORG: L'vov State University im. I. Franko (L'vivs' kyy derzhuniversytet)
TITLE: Effect of paramagnetic Cr^{3+} and Fe^{3+} ions on the optical and mechanical properties of rutile single crystals
SOURCE: Ukrayins' kyy fizichnyy zhurnal, v. 11, no. 4, 1966, 430-434
TOPIC TAGS: paramagnetic ion, optic spectrum, absorption spectrum, Verneuri method, absorption edge, activated crystal, rutile single crystal, dichrossi
ABSTRACT: The effect of Fe and Cr admixtures on the optical absorption spectrum and microhardness of rutile single crystals (TiO ₂), grown by the Verneur method, have been investigated. It was found that the fundamental absorption edge of the activated single crystal shifted to the long wavelength with concentration. The
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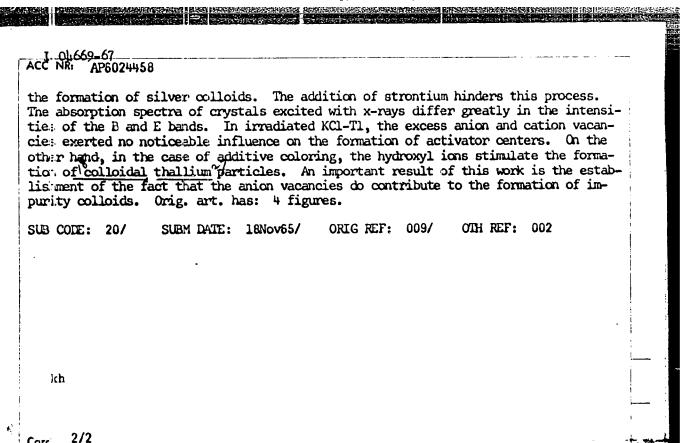
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L. N.; Nosenko, A. Ye.; Pashkovskiy, M. V.; Furtak,	. S. P. 50
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x irradiation and heat treatment in different atmosp scence properties of cadmium tungstate [Report, Fourt te held in Riga 16-23 September 1965]	pheres on the teenth Confer-
Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 6	
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optic material, cadmium compound, terbium, luminesce	ence, crystal
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song the rare earths that can form visible radiation	. •



THE RESIDENCE OF THE STREET, AND THE STREET, A L 40995-66 ENT(I) IJF(c) ACC NR. AP6020205 SOURCE CODE: UR/0056/66/050/006/1510/1518 AUTHORS: Bugay, A. A.; Levkovskiy, P. T.; Maksimenko, V. M.; Pashkovskiy, M. V.; Roytsin, A. B. Institute of Semiconductors, Academy of Sciences, Ukrainian SSR (Institut poluprovodníkov Akademii nauk Ukrainskov SSR) Splitting of EPR lines of Cr^{3+} in $ZnWO_{\mu}$ by an external electric TITLE: field Zh eksper i teor fiz, v. 50, no. 6, 1966, 1510-1518 SOURCE: T'OPIC TAGS: electric field, line splitting, Hamiltonian spin, ERR. ABSTRACT: Splitting of EPR lines of Cr3+ in ZnWO4 by an external electric field has been detected. An investigation has been made of the angular dependence of splitting (dependence of splitting value on crientation of external magnetic and electric fields with respect to crystallorgraphic axes). A Hamiltonian spin is set up describing the interaction between the system and the external electric field. Corrections to the transition frequencies have been found. The theoretical results satisfactorily describe the experimental angular dependences of the splitting. The corresponding Hamiltonian spin constants have Cord 1/2

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been determined.	A correlation effect	between the angular s	plitting
		he EPR half-width line	
detected for the f	irst time in the abs	ence of an external el	ectric
field. A qualitat	ive interpretation c	f the phenomenon has b	een
described. The au	thors thank M. F. De	ygen and V. B. Steynsh	leyger for
their constant int	erest in thus work.	V. A. Atsarkin for dis	cussion of
individual problem	ns. and L. I. Datsenk	to for assistance in me	easurements
Crig. art. has: 6	figures, 9 formulas;	and 2 tables - {Based	
.nuthors' abstract!		Company Company	(NT)
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SUB CODE: 20/ SUBM	DATE: 24Jan66/ ORIG	REF: 007/ OTH REF: 00)0
			

EWT(1)/EWT(m)/EWF(+)/ETI IJP(c) L 04669-67 ACC: NR: AP6024458 SOURCE CODE: UR/0181/66/008/007/2015/2021 AUMOR: Tsal', N. A.; Pashkovskiy, M. V.; Didyk, R. I. ORG: L'vov State University im. I. Franko (L'vovskiy gosudarstvenny universitet) TITLE: On the role of anion and cation vacancies in the formation of aggregate centers in KCl crystals activated with silver and thallium SOURCE: Fizika tverdogo tela, v. 8, no. \mathcal{T}_{i} 1966, 2015-2021. TOPIC TAGS: crystal lattice vacancy, potassium chloride, activated crystal, color cer.ter, anion, cation ABSTRACT: This is a continuation of earlier work by the authors (FTT v. 6, 1828, 1964 and elsewhere) which has shown that the anion and cation vacancies play a particularly active role when "intrinsic" colloids of an alkaline metal pare produced. The purpose of the present investigation was to determine the role of the vacancies in the formation of color centers in the activated crystals. The impurity forming the excess number of anion vacancies was the hydroxyl OH-, while the cation vacancies were produced by introducing Sr++ ions. Particular attention was paid to the formation of complex activator centers in KCl-Ag and KCl-Tl phosphors especially in crystals with silver impurities. The absorption spectra of the activated crystals, as well as of the crystal.s irradiated with x-rays were measured with a spectrophotometer (SF-4) in the range from 230 to 1000 nm (in steps of 5 nm) at room temperature. The results show the excess of the anion vacancies due to the OH- impurity to stimulate in KCl-Ag crystals 1/2 Card



ACC NR: AP. 005352

SOURCE CODE: UR/0181/67/009/001/0257/03-2

经保护公司的保护的政策 经经济的通过经济共和国人的发现的现在分词 医格里氏口管动脉炎 经现代的 医心外侧 计分析 化二甲基苯酚

AUTHOR: Tenl', N. A.; Pashkovskiy, M. V.; Didyk, R. I.

ORC: L'vov State University im. Ivan Franko (L'vovskiy gosudarstvennyy universitet)

TIPLE: Congulation of F centers in photochemically colored crystals of NaCl and KCl with anion impurities

SQURCE: Fizika tverdogo tela, v. 9, no. 1, 1967, 237-242

TOPIC TAGS: sodium chloride, potassium chloride, crystal impurity, coagulation, color center, gamma irradiation, thermal stability, absorption spectrum

ARSTRACT: This is a continuation of earlier work on the influence of different factors, particularly impurities, on colloid formation (FTT v. 6, 1828, 1964, Izv. AN SSSR ser. fiz. v. 29, 438, 1965, and elsewhere). Particular attention is paid to the role of anion and cation impurities in the formation of colloidal type centers in y-irradiated crystals, and to the thermal stability of these centers. The tests were made on NaCl and KCl single crystals with oxygen-containing anion impurities and CaCl₂ and SrCl₂ cation impurities. The absorption spectra were measured in the range from room temperature to 200C. Some of the samples were investigated under an electron microscope. At irradiation doses not lower than 1.0 x 10⁸ r, an intense colloidal band appears at 600 nm in NaCl crystals with anion impurities. Heating of these crystals to 200C reduces the intensity of this band and shifts the absorption maximum to 560 nm. In KCl crystals with OH impurities, the irradiation leads to the

Cord 1/2

ACC NR AP7005352

appearance of a weak colloidal band and a broad intense M band. The colloidal particles produced were too small to be detected with an electron microscope. The results indicate that colloidel centers occur only when the integral y-radiation dose is lairge (not less than 1.0 x 10° r), and when anion oxygen-containing impurities are present in the crystal. The stability of the F centers at room temperature and the concentration of the oxygen-containing impurities are inversely proportional to each other. Other features of the colloidal centers, the nature of which is not yet clear and calls for further study, are discussed. The authors thank A. Ye. Glauberman for a discussion of the results. Orig. art. has: 3 figures.

SUB CODE: 20/ SUEM DATE: 25Jun66/ ORIG REF: 004/ OTH REF: 006

ACC: NR: AP7004980 SOURCE CODE: UR/0048/66/030/009/1483/1486

AUTHOR: Tsal', N.A.; Pashkovskiy, M.V.; Didyk, R.I.

ORG: L'vov State University im. Iv. Franko (L'vovskiy gosudarstvennyy universitet)

TITLE: Silver activator centers in KCl crystals with oxygen-containing anionic impurities /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: ANSSSR. Izvestiya. Seriya fizicheskaya, v.30, no.9, 1966, 1483-1486

TOFIC TAGS: potassium chloride, silver, strontium, pota vium hydroxide, color center, absorption spectrum

ABSTRACT: As a continuation of their earlier work on the formation of colloidal particles of alkali metals as a result of coagulation of F centers, particularly under the influence of oxygen-containing anionic impurities, the authors have investigated impurity colloids of silver and the influence of point defects on the formation of activator centers in KCl crystals grown by the Kyropoulos technique from melts containing 0.2 mole percent of AgCl and in some cases from 0.2 to 1.0 mole percent of KOH or 0.2 percent of strontium. The crystals were colored photochemically with x-rays or additively by exposure for 5 hours to potassium metal vapor at 650° C. The absorption spectra of the different crystals were recorded; the spectra are presented and their features are discussed. Successive one hour anneals at 300, 500, and 650° C

Cord 1/2

ACI: NR: AP7004980

followed by rapid cooling to room temperature and observation of the absorption spe:trum showed that at 300° the F centers agglomerated to form colloidal particles of :lkali metal, revealed by an absorption band peaking at 720 mµ, and that at 500° the colloidal band was destroyed, absorption increased in the 400 to 500 mµ region, and the absorption in the 285 mµ band decreased. After the anneal at 650° there remained only a single absorption band at 410 mµ. The B band was strong and the E band was weak in photochemically colored KCl:Ag:OH crystals, whereas the E band was strong and the B band was weak in KCl:Ag:Sr crystals. A possible reason for this is discussed. Differences between the absorption spectra of the additively colored and the photochemically colored phosphors are ascribed to the greater importance of ionic processes in additive coloring. In the KCl:Ag phosphor there was observed a strong absorption band peaking at 675 mµ, the strength of which decreased when the silver concentration in the melt was raised above 0.2 percent; the nature of the centers responsible for this absorption is not known. Orig. art. has: 2 figures.

SUB CODE:

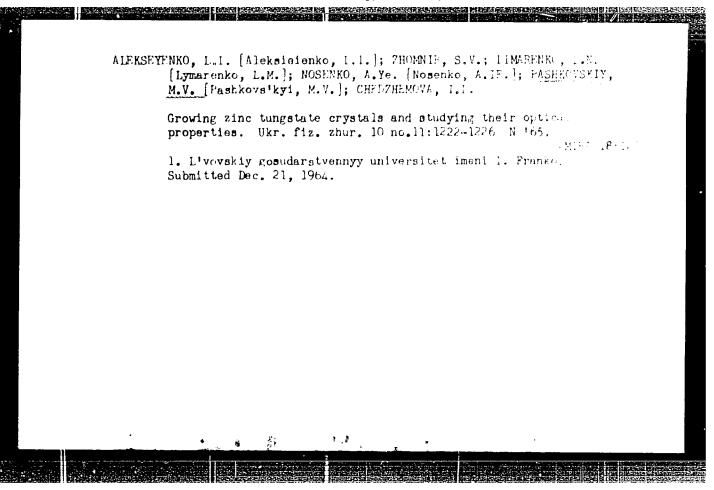
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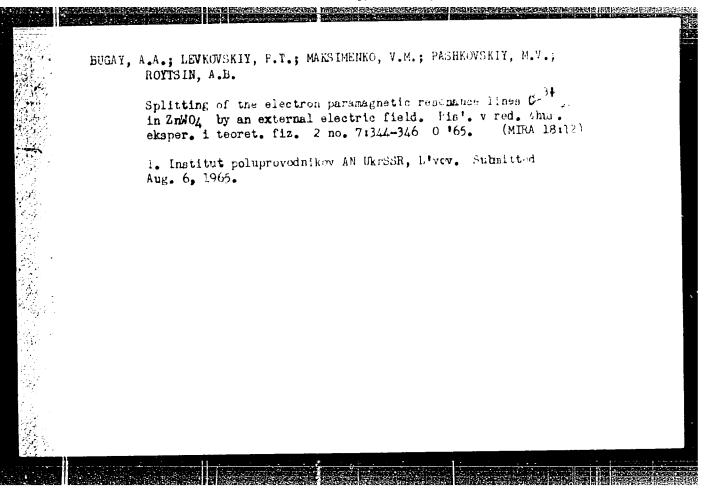
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TITLE: Certain	features in the	formation of co	lor centers	In Max and
NaBr crystals				
SOURCE: Optika	i spektroskopiya	, v. 20, no. 5,	1966, 832-	836
"ODIC TACS. CT	ystal, anion, coa	gulation, elect	ron interac	tion, ion
interaction, co	lor center	,		
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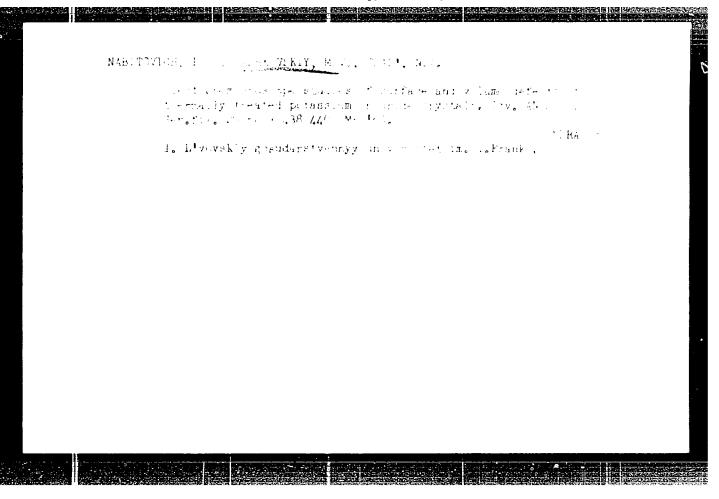
BILEN'KIY, B.F.; MILIYANCHUK, M.V.; PASHKOVSKIY, M.V. [Pashkovs'kyi, M.V.]

Study of the optical properties of thin mercury sulfide films. Ukr. fiz. zhur. 10 no.61687-689 Je '65. (MIRA 18:7)

1. L'vovskiy gosudarstvennyy universitet im. I.Franko.

L 5133-66 EWT(1)/I IJP(c) GG ACCESSION NR: AP5018638 AUTHORS: Pashkovs'kyy, M. V. (Pashkovskiy, M. V.); Tsal', M. (Tsal', N. A.); Nabytovych, Y. W. (Market M. V.); Tsal', M.	31/0785
TITLE: Collodial coagulation of F-centers in KBr crystals with impurities SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 7, 1965, 78	3B
ABSTRACT: The effect of OH and the divalent cation Ca ⁺⁺ on the cess of colloidal formation of KBr crystals has been investigate crystals indicate the formation of a Ca(OH) precipitate. Thus	e pro-
does not participate in this process and the formation of colloi inhibited. The inhibiting action of Ca ⁺⁺ is thus explained by i Card 1/2	rs. ds 1s ts
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, 5133-66 ACCESSION NR: AP5018638	3	3	
interaction with the OHA part of the F-centers other part is captured to electron microscope study colored KBr crystals income	reduces the potassium ; by the calcium atoms to ly of freshly cleaved a	ions to atoms, the form z-centers. An urfaces of additively	
ing Ca++ optical and electrological colloids. Orig. art. he	ectron microsocpe inves		
ASSOCIATION: L'vive'ky; gosudarstvennyy univers	y derzhuniversytet im. itet im. I. Franko] (<u>L'</u>	I. Franka [L'vovskiy vov State University)	1,55
ASSOCIATION: L'vivs'ky gosudarstvennyy universi SUBMITTED: 08Sep64	y derzhuniversytet im. itet im. I. Franko] (<u>L'</u> ENCL: 00	I. Franka [L'vovskiy vov State University) SUB CODE: SS,OP	1,55
gosudarstvennyy universi	itet im. I. Frankoj (L^{1}	vov State University)	1,55
gosudarstvennyy universi SUBMITTED: 08Sep64 NR REF SOV: 004	itet im. I. Frankoj (<u>L'</u> ENCL: 00	vov State University)	1,55
gosudarstvennyy universi SUBMITTED: 08Sep64	itet im. I. Frankoj (<u>L'</u> ENCL: 00	vov State University)	1,55



64740-65 EWT(1)/EPA(s)-2/EWT(m)/	/T/ENF(t)/EWP(d) IJP(c) JD/JG 49
COPERTON NO. APEOISA47	UR/0185/65/010/006/0687/0689 43
UTHORS: Bilen'kyy, B.F.; Mil	Liyanchuk, M.V.; Pashkovs'kyy, M.V.
talan a sa s	erties of thin films of red mercury
DURCE: Ukrayins'kyy fizychny	y zhurnal, v. 10, no. 6, 1965, 687-689
OPIC TAGS: mercury compound, pectrum	, thin film, optic property, absorption
of single crystals of G-HgS or	S were obtained by thermal sputtering nto glass substrates. The films were
ransparent, reddish-orange ar ransmission and absorption of the presented. The main absorption of the presented and shifts to	nd uniform in thickness and color. The pectra of such a film (0.53 nm thick) rption edge is the same as that of lower wavelengths on cooling. The dis-
ersion_curve of the index_of	refraction of a thin film of α -HgS is

64740-65 ACCESSION NR: AP5015447 resented. On heating the films changed color irreversibly, becoming darker above a certain temperature. Optical and x-ray studies revaaled that this is due to a partial transformation to the β modifidation. Heating leads initially only to a shift of the absorption elge to longer wavelengths with an eventual change in the absorption edge and the appearance of a β -HgS absorption edge. On cooling, after previous heating to 500C, the film retains its black color and has at room temperature a β-HgS absorption edge at 1.7 nm. The spectra were obtained on an SF-4 spectrophotometer and on an IKS-12 spectrometer. "The authors express their gratitude to I. V. Savita'kyy (Savitakiy) for growing the a-HgS single crystals." Orig. act. has: 3 figures. ABSOCIATION: L'vivskyy derzhuniversytet im. Iv. Franka [L'vovskiy gosuniversitet im. I. Franko] (L'vov State University) SUBMITTED: 20Jan 55 ENCL: 00 SUB CODE: 55, OP NR REF SOV: 010 OTHER: 006

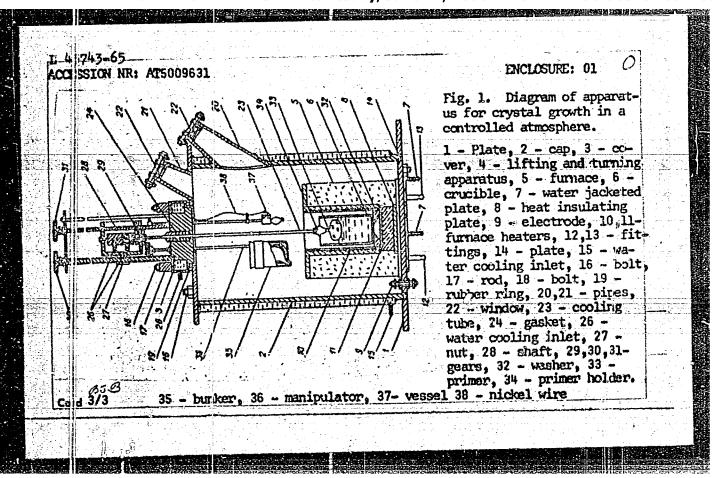
34	Fil	15738-65 EPA(s)-2/EWT(m)/EWP(b)/EWP(t) Pt-7 IJP(c) JD/JG/GS UR/0000/64/000/000/0084/0086	
	At No	(HOR: Bilen'kyy, B. F. (Bilen'kiy, B. F.); Hrechukh, Z. H. (Grechukh, Z. G.); ienko, A. Ye.; Pashkovs'kyy, M. V. (Pashkovskiy, M. V.)	
	71	ME: Bome optical properties of mercury sulfide	27 3 25
	80 st	RCE: Ivov. Universytet. Pytamya fizyky tverdoho tila (Problems in solid te physics). Ivov, Vyd-vo L'viv. univ., 1964, 84-86	
	TO	IC TAGS: mercury sulfide, thallium activation, absorption spectrum, reflection ctrum, diffuse reflection, impurity absorption	
	of th fr gr	TRACT: The authors investigated some optical properties of powdered samples of red modification of mercury sulfide, especially the influence of the dimensions the microcrystals, of the temperature, and of admixtures of copper, iodine, and llium on the diffuse reflection spectrum. The powder particles ranged in size in 1.5 to 0.05 mm. The impurities are introduced into the crystal during the with. The absorption spectrum of microcrystals CHES and CHES(TI) in the near introduced regions was also investigated. The diffuse reflection spectrum in the vis-	
	101	tegron was measured relative to megnesium oxide with an SF-10 photospectro-	
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1 1	ESSION NR: AT500	09629					I
re: wa:	er. A dependence lectivity being po e region, and with possiderable increa	pasessed by the situates	y samples havi ation reversed place in the l	ng larger m I in the long ong-wave reg	icrocrystals g-wave regio gion when th	in the sho n. Further e dimension	ort- more,
th	microparticles ar Enclosure. The t	ro increas	ed. The resul	ts are llu	s trated in F	des. 1 and	2 pr
ું bai	id near 1.6 nm, whi	ich was no	t observed in	the CHAS spe	ectrum, which	h together	with
: T.DI					7.47/199)		
cr.	1.4 mm band in th	ne diffuse recorption.	reflection sp	ectrum of on thank T. V.	gewatelkan Beitti ceri	(Realtelda)	for
CT,	bed to impurity ab wing the samples."	ecorption.	"The authors	thank I. V.	Savyte'kyy	Cavitskiy)	for
gr	bed to impurity ab	ecorption.	"The authors	thank I. V.	Savyte'kyy	possibly be (Savitskiy)	for
er gr As	bed to impurity ab wing the samples." OCIATION: None	ecorption.	"The authors rt. has: 3 fi	thank I. V. gures.	Savyts'kyy	(Savitskiy)	for
er gr AS SU	bed to impurity ab wing the samples." OCIATION: None	ecorption.	"The authors rt. has: 3 fi	thank I. V. gures.	SAVYTS'KYY	(Savitskiy)	for
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er gr AS SU MR	bed to impurity abwing the samples." CCIATION: None METTED: 22Jun64 REF SOV: 003	ecorption.	"The authors rt. has: 3 fi	thank I. V. gures.	Savyts'kyy	(Savitskiy)	for

والمستخوا	45743-65 EEC(b)-2/EWA(c)/EWT(1)/EWT(m)/T/EWP(b)/EWP(t) P1-4 IJP(c)
A	/GS/JD/JG CESSION NR: AT5009631 UR/0000/64/000/0095/0099
A	THOR: Teal', M. Q. (Teal', N. A.); Pachkovs'kvv. H. V. (Pachkovskiy, H. V.); dyk, R. I.
7	TIE: Apparatus for growing alkali-halide single crystals in vacuum and in inert mospheres
8	URCE: <u>Lvov. Universytet</u> . Pytannya fizyky tverdoho tila (Problems in solid ate physics). Lvov, Vyd-vo L'viv. univ., 1964, 95-99
7 P	PIC TAGS: single crystal, crystal growth, alkali halide crystal, crystal phosor, inert atmosphere, vacuum growth
	STRACT: Apparatus is described which permits preparation of single crystals
d t	thout the hydroxyl or oxygen impurities which adversely affect the single- ystal properties. The apparatus is shown in Fig. 1 of the Enclosure. Among e main features of the equipment is a quartz bunker for adding salt into the ystal in vecuum, vessels for introducing the activator in the melt under vacuum nditions, a manipulator for separating the grown crystal, and a holder for the
d:	thout the hydroxyl or oxygen impurities which adversely affect the single- ystal properties. The apparatus is shown in Fig. 1 of the Enclosure. Among a main features of the equipment is a quartz bunker for adding salt into the ystal in vacuum, vessels for introducing the activator in the melt under vacuum

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

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	rimer. The equipment is described in so	one details orige art. nast > lightes.	() • 201
	SECCIATION: None URMITTED: 22Jun64 ENCL	OL SUB CODE: SS	
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	73350 ZON 1888
At V	HOR: Lymarenko, L. M. (Limarenko, L. M.); Pashkovs'kyy, M. V. (Pashkovskiy, H.; Rybalka, V. V.; Savyts'kyy, I. V. (Savitskiy, I. V.)
p\	TE: Laws governing stationary photoconductivity in mercury sulfide with im- Bt
80 81	RCE: Largy, Universytet. Pytannya fizyky dverdoho tila (Problems ins solid ite physics). Lvov, Vyd-vo L'viv. univ., 1964, 115-118
T(TC TAGS: mercury sulfide, photoconductivity, stationary photoconductivity, imity effect, temperature dependence
l l p	TRACT: This is a continuation of earlier work by the authors (UFZh v. 6, 691, 11; Sbornik referatu IV konference o monokrystalech v Turnove 1961, VUM, Turnov, 12, 93; FTT v. 4, 1970, 1962), dealing with the growth of HgS crystals and their operties. This technology was used to grow a series of HgS crystals with imperties of I, Cd, Sb, Se, Te, P, Tl, Cu, Ag, Sn, and Mn, in amounts of 0.0010.1% roduced into the charge prior to the analysis. The procedure for measuring the stronger characteristics of the photoconductivity of the samples is described
Ca	1/2

1. 45737-65 AT5009633 ACCESSION NR: bilefly. An investigation of the temperature dependence of the photocurrent shows that for most samples the photocurrent increases exponentially with increasing tempirature at temperatures above 250K and is either independent of the temperature or pirature at temperatures above 270% and 18 cioner independent of the temperatures and pends very little on it at lower temperatures. The dark resistance of HgS has a wak dependence on the type of impurity, and the impurity maximum of the photosens tivity has a postion that is independent of the type of impurity. The lux-ampere claracteristics of the photocurrent is sublinear above 250K, with exponent 0.5--0.8 and linear below 250K. The weak dependence of the conductivity on the impurities in attributed to the compensating action of the cation vacancies. miximum of the spectral dependence of the photocurrent is attributed to excitation d! electrons captured by these vacancies. The temperature and lux-ampere relationlips are attributed to the influence of the filling of the adhesion centers on the ite of recombination of the free electrons. The results are interpreted in light F an earlier study of the dependence of the stationary photoconductivity on varius factors (V. E. Lastkarev, FTT v. 5, 417, 1963). Orig. art. has: 2 figures, formulas, and I table. SSOCIATION: None SUB CODE: 00: ENCL: WENTTED: 22Jun64 001 OTHER: IR REF SOV. ard 2/2

TSAL', N.A.; PASHKOVSKIY, M.V.; NABITOVICH, I.D.

Effect of anion impurities on the coagulation of F-centers in potassium caloride crystals. Fiz. tver. tela 5 no.6:1822-1833 Je '54.

1. L'vovskiy gosudarstvennyy universitet imeni Iv. France.

ACCESSION Ent. APh039677

5/0181/64/006/006/1828/1833

AUTHORS: Tsal', N. A.; Pashkovskiy, M. V.; Nabitovich, I. D.

TITLE: The effect of anion impurities on the coalescence of F centers in crystals of potassium chloride

SCURCE: Fizika tverdogo tela, v. 6, no. 6, 1964, 1828-1833

TCPIC TAGS: impurity center, color center, alkali halide, electron microscope, absorption spectrum/ SF 5 spectrophotometer, Kyropoulos procedure

ARSTRACT: The crystals were grown by the Kyropoulos procedure in a sealed chamber with an atmosphere of very pure He. The crucible with highly purified salt was heated at 6000 for 5 hours during continuous evacuation before the inert gas was introduced. Activation was accomplished by diffusion into heated crystals. Absorption spectra were measured on cleavage plates of colored samples. Measurements were made on an SF-5 spectrophotometer in the interval 4000-10 000 mpt. The absorption curves show strong coalescence of F centers in those parts of the crystals rich in oxygen (the peripheral zones). The centers of the samples, where oxygen was less abundant, snowed only slight coalescence. For both oxygen and sulfur doping, the coalescence of F centers took place in the 7200 mpt band. Electron-microscope studies were made to observe coagulation of colloidal particles in crystals Coal-1/2

ACCESSION NR: AP4039677

containing oxygen-bearing anion impurities (OH , $\rm CO_3$, $\rm SO_4$) and combined anion and bivalent cation impurities. The anion impurities strongly stimulated coalescence of F centers, but bivalent cation impurities markedly retarded the process. The authors previously explained this latter process as the result of precipitation of such compounds as $\rm Ca(OH)_2$, $\rm CaCO_3$, and $\rm CaSO_4$. This is not the only possibility, however. The introduction of bivalent cation impurities is accompanied by an equivalent number of cation vacancies. Electron neutrality of the crystal may be attained by simultaneous decrease in concentration of anion vacancies. The retarding effect of the impurities may be thus explained either as precipitation of anion impurities or as diminution in the number of anion vacancies. "In conclusion, the authors express their thanks to Professor A. Ye. Glauberman for his valuable discussions and for his constant interest in the work." Orig. art. has: 4 figures.

ASSOCIATION: L'vovskiy gosudarstvenny*y universitet im. Iv. Franko (Lvov State University)

SUBMITTED: 12Dec63

ENCL: 00

SUB CODE: SS, OP

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5/0181/64/006/003/0780/0784

ACCESSION NR: AP4019838

AUTHORS: Teal', N. A.; Pashkovskiy, M. V.

TRILE: The role of impurities in the coalescence of F centers in KCl orystals

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 780-784

TOPIC TAGS: F center, crystal lattice, impurity center, anion cation interaction, anion vacancy

ARSTRACT: Impurities considered by the authors include OH, CO₃², and SO₄² anions and the bivalent cations Ca²⁺, Sr²⁺, Bo²⁺, and Mg²⁺. Transformation of the F band as a result of heat and light acting on a crystal in the longer-wave band was observed only in crystals with OH impurities or with other anion impurities containing oxygen, such as CO₅² and SO₄². The bivalent cation impurities strongly retarded the process of colloid formation. This behavior of cation impurities is retarded the process of colloid formation. This behavior of cation impurities is explained by the interaction between cation and anion impurities, with the formation of separate phases, such as Ca(OH)₂ and CaCO₃. When chlorine ions are tion of separate phases, such as Ca(OH)₂ and CaCO₃. When chlorine ions are replaced by doubly charged oxygen ions in the KCl lattice, an equivalent number of anion vacancies must arise. At higher temperatures the mobility of these vacancies

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ACCESSION NR: AP4019838

is sufficient to accelerate F center diffusion and to cause aggregation of these centers. Thus, the substantial role in coalescence of F centers may be played by anich rather than cation vacancies. Preliminary studies on KCl doped with dry oxygen by diffusion techniques support this view. The role of OH ions (or other oxygen-bearing anions) in this process should then reduce to supplying the crystal with oxygen ions and, even more, to creating an excess of anion vacancies in the crystal. The tivalent anions CO₂ and SO₄, being dissolved in the lattice, are also able to create excess anion vacancies. "In conclusion, the authors thank Professor A. Ye. Glauberman for his useful remarks in discussing the results and for his constant interest in the work." Orig. art. has: 4 figures.

ASSOCIATION: L'vovskiy gosudarstvenny*y universitet im. I. Franko (L'vov State University)

SUBMITTED: 09Sep63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: SS, EC

NO REF SOV: 003

OTHER: 010

Cord 2/2

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BILEN'KIY, B.F. [Bilen'kyi, B.F.]; PASHKOVSKIY, M.V. [Pashkovs'kyi, M.V.];

MOSENKO, A.Ye. [Nosenko, A.He.]; GRECHUKH, Z.G. [Hrechukh, Z.H.]

Optical properties of mercury sulfide. Ukr. fiz. zhur. 8 no.8;

913-915 Ag '63. (MIRA 16:11)

1. L'vovskiy gosudarstvennyy universitet im. Iv. Franko.
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